



**Global Command and Control System (GCCS),
Version 2.2
HP Operating System Upgrade, Version 2.3.0.4
Implementation Procedures**

Prepared for DISA by

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Chapter 1 Introduction

The GCCS 2.2 OS Upgrade segment provides for the installation of the necessary operating system (OS) updates required to upgrade from a Global Command and Control System (GCCS) Version 2.1 (Unified Build (UB) Version 2.1.3.5) system to a GCCS 2.2 (UB 3.0.1.6G) system. This OS upgrade may be loaded on any GCCS 2.1 system presently running UB 2.1.3.5.

This document consists of the following sections:

Pre-load Information

Important information regarding backups of GCCS 2.1 workstation and preparation for GCCS 2.2 load.

Segment Load

Procedures for loading the GCCS 2.2 OS Upgrade segment onto a GCCS 2.1 workstation.

Configure Workstation and Restore Data

Procedures to configure the workstation and restore backed-up data.

Load Segment onto the Installation Server (Optional)

Procedures to load the GCCS 2.2 OS Upgrade onto an Installation Server machine for loading across the network.

For a detailed description of changes between the previous version of GCCS and this version, refer to the UB 3.0.1.6G Version Description Document included with this segment. For details on specific functions, refer to the *Unified Build 3.0.1.6G User's Guide* or the *Unified Build 3.0.1.6G System Administrator's Guide*.

It is important to read this entire document before proceeding with the segment load. Important information on the impact this segment may have on your system is included in Chapter 2. Failure to read this information thoroughly may result in the loss of data and improper loading of the segment tape.

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Chapter 2 Pre-load Information

Before migrating your system from GCCS 2.1 to GCCS 2.2, it is necessary to understand the impact this upgrade will have on your system functions. Complete the following steps before loading the GCCS 2.2 OS Upgrade segment.

2.1 GCCS 2.1 Data Backup Procedures

Prior to upgrading to GCCS 2.2, consideration must be given to the fact that certain Unified Build (UB) data must be saved or manually recorded for later restoration before the migration to GCCS 2.2 begins.

There are several items to consider with regard to UB prior to upgrading from UB 2.1.3.5 (GCCS 2.1) to UB 3.0.1.6G (GCCS 2.2). The executed upgrade entails the replacement of a sizable number of executables. As a result, several of the data files that are populated by site specific configuration are not compatible across versions of GCCS. In order for a site to retain its configuration after the upgrade to UB 3.0.1.6G (GCCS 2.2), sites should follow the steps below:

1. Login on the TDBM Master as a valid GCCS user.
 2. **Broadcasts:** In order to retain the Broadcast configuration for reentry after the installation of UB 3.0.1.6G, perform the following on the TDBM Master machine:
 - a. Under the FOTC/Bcst Pull Down Menu (PDM), select **Broadcasts**. The **BROADCASTS** window appears.
 - b. In the **BROADCASTS** window, highlight a broadcast and click **EDIT**. An **EDIT BROADCAST** window appears. Use the **PRINT SCREEN** option to print the **EDIT BROADCAST** window.
 - c. In the **EDIT BROADCAST** window, click **HEADER**. A **HEADER EDIT** window appears. Use the **PRINT SCREEN** option to print the **HEADER EDIT** window. Dismiss the **HEADER EDIT** window and return to the **EDIT BROADCAST** window.
 - d. In the **EDIT BROADCAST** window, click **FILTER**. A **DATABASE SEARCH** window appears. Use the **PRINT SCREEN** option to print the **DATABASE SEARCH** window.
 - e. Repeat steps b through d for each broadcast in the **BROADCASTS** window, keeping the printouts together for each separate broadcast.
 3. **Communications Configuration:** In order to retain the Communications channel configuration for reentry after the installation of UB 3.0.1.6G, perform the following on the TDBM Master machine:
 - a. Under the **Comms PDM**, select **Communications**. The **COMMUNICATIONS** window appears.
 - b. Use the **PRINT SCREEN** option to print the **COMMUNICATIONS** window.
-

-
- c. In the **COMMUNICATIONS** window, highlight a comms channel and click **EDIT**. A **COMMS EDIT** window for the channel appears. Use the **PRINT SCREEN** option to print the **COMMS EDIT** window for the channel.
 - d. Repeat step c for each communications channel in the **COMMUNICATIONS** window.
 4. **AutoForward Tables:** In order to retain the AutoForward table configuration for reentry after the installation of UB 3.0.1.6G, perform the following on the TDBM Master machine:
 - a. Select Auto Forward Table under the Comms PDM. A **MESSAGE AUTO FORWARD** window appears.
 - b. In the **MESSAGE AUTO FORWARD** window, highlight an auto forward entry and click **EDIT**. An **EDIT AUTO FORWARD** window for the entry appears. Use the **PRINT SCREEN** option to print the **EDIT AUTO FORWARD** window for the entry.
 - c. Repeat step b for each entry in the **MESSAGE AUTO FORWARD** window.
 5. **DDN Host Table:** The DDN Host table can be archived to tape prior to performing the UB 3.0.1.6G upgrade. Perform the following on the TDBM Master machine:
 - a. In an xterm window, enter the following to change directories:

```
cd /h/Nauticus/data/mnt/Messages
```
 - b. Using the tar command, save the following two files to tape:

```
tar cvf <no-rewind tape device> Host-Table
tar cvf <no-rewind tape device> Host-Table-Altr
```
 6. **Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids:** If it is necessary to save the above data, it will be necessary to transmit each of the Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids from the TDBM Master Machine to a different TDBM Master Machine. There are two options for accomplishing this:
 - ◆ A site can rename the Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids to names that are in series (i.e.: 001, 002, 003), transmit them to a different TDBM Master machine, perform the upgrade to UB 3.0.1.6G on the original TDBM Master machine, and transmit the items back to the original TDBM Master.
 - ◆ Sites can convert a TDBM Client on the suite into a TDBM Master or they can coordinate with another site (or the OSF) and transmit the Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids to that site. When the upgrade is complete, the Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids can be transmitted back. The procedures for configuring a TDBM Master are in the UB System Administrator Guide. The procedures for transmitting Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids are documented in the UB Users Guide.
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7. **Briefs and Stored Slides:** Briefs and Stored Slides can be archived to tape and restored after the upgrade to UB 3.0.1.6G is complete. Perform the following on the TDBM Master machine:

- a. In an xterm window, enter the following to change directories:

```
cd /h/Nauticus/data/mnt
```

- b. Using the tar command, save the following directory to tape:

```
tar cvf <no-rewind tape device> StoredScreens
```

2.2 GCCS 2.1 Workstation Preparation

The following steps should be completed on each workstation that is being upgraded to GCCS 2.2.

1. De-install *only* the following segments (these segments should be de-installed in this exact order):
 - ◆ Any UBPATCH segments (2.1.3.5P1 and 2.1.3.5P2) (if applicable)
 - ◆ PRINTER
 - ◆ JMCIS Applications
 - ◆ UB Applications
 - ◆ Joint Mapping Toolkit
 - a. Login as **sysadmin** (default password **vinson**) and select SEGMENT INSTALLER from the SOFTWARE menu.
 - b. In the SEGMENTS CURRENTLY INSTALLED box in the Segment Installer window, select the first segment you wish to delete (e.g., PRINTER).
 - c. Click DE-INSTALL to de-install the segment. A window appears, displaying an hourglass and informing you that the system is de-installing the segment.
 - d. Repeat Step b and Step c for each segment until all segments listed are de-installed.

Note: Ensure that all segments named above are de-installed before proceeding with the upgrade.

2. If you wish to install the **GCCS 2.2 OS Upgrade** segment via the Installation Server, the `/home2` partition on the system you are using as an Installation Server must be exported. Follow the steps below on the Installation Server machine:
 - a. View the `/etc/exports` file. Ensure the following line is included in the file (if not listed, it must be added):

`/home2`
 - b. Save the changes to the `/etc/exports` file.
 - c. From an xterm command line, enter the following:

```
exportfs -a
```

Note: For details on using the Installation Server to load your workstation, see Chapter 5
--

Chapter 3 Segment Load

The migration from GCCS 2.1 to GCCS 2.2 requires that you load the GCCS 2.2 OS Upgrade segment and then complete the HP application segment load as you would on a destructive (normal) load.

Note: While it is possible, temporarily, to have workstations on the same LAN which are running different versions of GCCS (i.e., some GCCS 2.1 workstations and other GCCS 2.2 workstations), *it is not recommended. GCCS COE and other segments of GCCS 2.1 and GCCS 2.2 are incompatible. Attempting to run GCCS 2.1 and GCCS 2.2 together on the same LAN is not advised.*

1. If loading from tape, insert the GCCS 2.2 Operating System Upgrade tape into a tape drive. If loading from Installation Server, ensure that the Server has been properly loaded with the segment (see Chapter 5).
2. Login as **sysadmin** and select Segment Installer from the SOFTWARE menu.

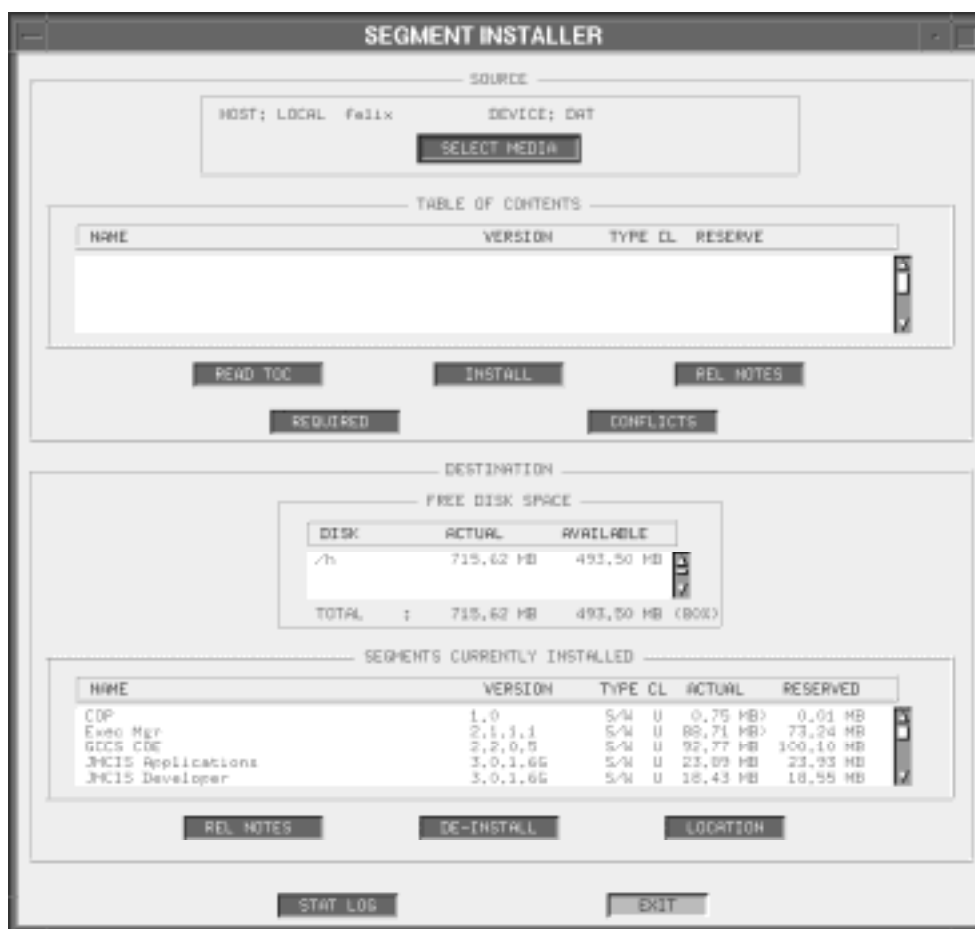


Figure 1. SEGMENT INSTALLER Window

3. In the **SEGMENT INSTALLER** window, click **SELECT MEDIA** in the **SOURCE** box. The **SELECT MEDIA** window appears.

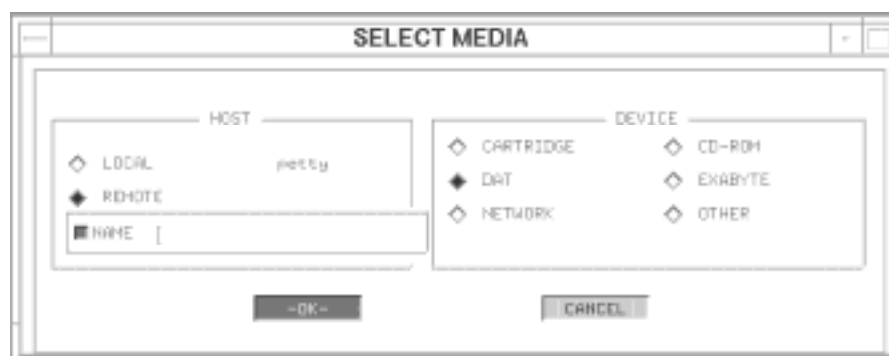


Figure 2. **SELECT MEDIA** Window

4. If loading from tape, complete the following steps. If loading from the Installation Server, proceed to Step 5.
 - a. In the **SELECT MEDIA** window, click the diamond knob next to the **LOCAL** field (if the tape is in a drive which is attached to the machine you are upgrading) or the diamond knob next to the **REMOTE** field (if the tape is in a drive which is attached to another machine).
 - b. If you select **REMOTE**, a **NAME** field appears just below the **REMOTE** field. Click the button next to the **NAME** field to display a list of hosts available on the local network, and select the hostname of the machine where the tape drive is located.
 - c. In the **DEVICE** box, select the media type (e.g., **DAT** or **OTHER**) for the tape. If you select **OTHER**, you must enter the device name of the tape medium you are using (e.g., `/dev/rmt/0mn`).

Note: It is highly recommended that you use a no-rewind tape device when specifying the device name in the **OTHER** field.

Proceed to Step 6.

5. If loading from the Installation Server, in the **SELECT MEDIA** window, click **NETWORK** in the **DEVICE** box.
6. Click **OK** to return to the **SEGMENT INSTALLER** window.
7. Click **Read TOC**. The items that appear in the **TABLE OF CONTENTS** portion of the **SEGMENT INSTALLER** window are the names of software segments contained on the tape or Installation Server.
8. From the **TABLE OF CONTENTS** list, select the **GCCS 2.2 OS Upgrade** segment.

-
9. Click **INSTALL**. A window appears, displaying an hourglass, indicating that the system is installing the selected segment. The segment requires a few minutes to load and execute.

Do not attempt to run any other process during the **GCCS 2.2 OS Upgrade** segment install. The install modifies certain items (such as the “xterms”) and if running any of these processes during the install could result in the install failing.

10. When the segment installation is complete, a warning window appears, stating **Selected Segment(s) Installed Successfully**. Immediately after this warning, another warning window appears, stating that you must reboot your machine after completing the installation.
11. Click **OK** in both of the warning windows.
12. In the **SEGMENT INSTALLER** window, click **EXIT**.
13. Reboot the machine, using the **Reboot** option on the **Hardware** menu.
14. Eject the GCCS 2.2 Operating System Upgrade tape from the tape drive and insert the HP OS Patch tape into the tape drive.
15. Login as **sysadmin** and select **Segment Installer** from the **SOFTWARE** menu.
16. Repeat Step 3 through Step 6 and then click **Read TOC**.

The items that appear in the **TABLE OF CONTENTS** portion of the **SEGMENT INSTALLER** window are the names of software segments contained on the tape or Installation Server.

17. From the **TABLE OF CONTENTS** list, select the **HP OS Patch** segment.
 18. Click **INSTALL**. A window appears, displaying an hourglass, indicating that the system is installing the selected segment. The segment requires a few minutes to load and execute.
 19. When the segment installation is complete, a warning window appears, stating **Selected Segment(s) Installed Successfully**.
 20. Click **OK** to dismiss the warning window.
 21. If an **HP OS Patch** has not been previously installed (i.e., Patch 1 has not been installed and you are installing the roll-up Patch 2), a warning window appears, informing you that you must not reboot your machine. If required, click **OK** to dismiss the warning window, reboot using the **System Reboot** option under the **Hardware** menu, and once the reboot has completed and you are at the login screen, login as **sysadmin** and select **Segment Installer** from the **SOFTWARE** menu.
 22. Eject the **HP OS Patch** tape from the tape drive and insert the **Unified Build 3.0.1.6G Application Software** tape into the tape drive.
-

23. Repeat Step 3 through Step 6 and then click **Read TOC**.

The items that appear in the **TABLE OF CONTENTS** portion of the **SEGMENT INSTALLER** window are the names of software segments contained on the tape or Installation Server.

24. Ensure the current time on the workstation is correct. If not, reset the time on the workstation using the **Set System Time** option under the **Network** menu.

25. Install *only* the following application segments in accordance with the steps below.

WARNING: These applications *must* be installed in this exact order.

Note: The EXEC MGR (EM) segment remains installed. *Do not* re-install the EXEC MGR (EM) segment.

- ◆ GCCS COE
- ◆ JMTK
- ◆ UBApps
- ◆ JMCISApps
- ◆ PRINTER
- ◆ Any additional HP-based GCCS Application Segments

26. From the **TABLE OF CONTENTS** list, select the **GCCS COE** segment. Click **INSTALL** to install the **GCCS COE**.

During the **GCCS COE** segment installation, a warning window appears, stating that you must configure the Host/Server settings and reboot the system when the installation is complete.

27. Click **OK** in the warning window to dismiss it.

28. Configure the **TDBM** Host and Client(s) settings as follows. For more details on the **SysCon** window, see the *Unified Build System Administrator's Guide*:

- a. From the **Network** menu, select **System Configuration**. The **SysCon** window appears.
- b. To set the hosts, in the **Hosts** box (on the left side of the window), click the toggle box beside the host entry you wish to change (starting with **Full Host #2**).
- c. Click the **Full Host #2** field next to the appropriate toggle box. The field becomes active and is now editable. Enter the name of the host.

Note: When entering hostnames, you should enter the name of the local host (*"this"* machine's hostname) in the **Full Host #2** field and any other hosts on the local network (other machines on your local LAN) into the subsequent **Full Host** fields.

- d. Verify the hostname in the **Local Hostname:** field. This should be your workstation's hostname.

- e. In the TDBM Master: field, enter the TDBM Server hostname for your workstation.
- f. In the GCCS environment, both the TDBM server and TDBM clients should have the TDBM server hostname in each of the following:

admin	qs
prt	wdbm

Note: Typically, in the GCCS environment, both the TDBM server and TDBM clients should have the TDBM server hostname in each of the above fields in the **SysCon** window. However, to account for diverse configuration capabilities, any hostname may be entered in these fields.

- g. Click OK to save the changes you have made.
29. Update the local hosts file to reflect the local hosts which will be allowed to communicate with your system (trusted hosts) by using the **Edit Local Hosts** window. For more details on editing the Local Hosts, see the *Unified Build System Administrator's Guide*.
- a. From the **Network** menu, choose **Edit Local Hosts**. The **EDIT HOSTS** window appears.
 - b. For each of the machines which are to be designated as trusted hosts on your LAN, highlight the IP address which corresponds to the host and click **EDIT**. The **EDIT MACHINE** window appears. (Note: If a host's IP address does not appear in the list in the **EDIT HOSTS** window, you may add it by clicking **ADD**. An **ADD MACHINE** window, similar to the **EDIT MACHINE** window, appears.)
 - c. In the **EDIT MACHINE** window, verify the information in the **MACHINE NAME:** and **MACHINE ADDRESS:** fields is correct. If the information in these two fields is not correct, edit it by entering the correct information in the **NEW MACHINE NAME:** and **NEW MACHINE ADDRESS:** fields.
 - d. In the **EDIT MACHINE** window, click the **Trusted Machine** checkbox so it is filled (on). This host is now a trusted host for the local machine.
 - e. In the **EDIT MACHINE** window, click **ALIASES**. The **ALIASES** window appears.
 - f. In the **ALIASES** window, click **ADD**. The **ADD ALIASES** window appears.
 - g. Enter the alias you wish to assign to the host and press [Return] to accept the entry.
- IMPORTANT:** You must press the [Return] key on your keyboard to accept the entered alias. If you click **Cancel** in the **ALIASES** window, the alias information will not be saved.
- h. Click OK in the **ALIASES** window. The **ALIASES** window closes, returning you to the **EDIT MACHINE** window.

- i. Click OK in the EDIT MACHINE window. The EDIT MACHINE window closes, returning you to the EDIT HOSTS window. In the * column of this window, you will now see one or more of the following indications, depending on the changes you have made:
 - ◆ A -- Indicating the machine description has been added during this session.
 - ◆ D -- Indicating the machine description has been marked for deletion during this session.
 - ◆ M -- Indicating that this machine description has been modified during this session.
 - ◆ T -- Indicating that this machine description has been designated a TRUSTED HOST during this session.
- j. Click OK in the EDIT HOSTS window.

30. When the GCCS COE install and Host/Server configuration is complete, use the System Reboot option under the Hardware menu to reboot the system.

WARNING: You *must* reboot the workstation after the GCCS COE segment is installed. Do not load any additional segments without rebooting the workstation.

31. Login as **sysadmin** and select Segment Installer from the SOFTWARE menu.
32. Repeat Step 3 through Step 6 and then click Read TOC.

The items that appear in the TABLE OF CONTENTS portion of the SEGMENT INSTALLER window are the names of software segments contained on the tape or Installation Server.

33. Select and install the following segments from the GCCS 2.2 Operating System Upgrade tape:

Note: The segments listed should be installed in the exact order indicated in order to avoid dependency errors during the install.

- ◆ JMTK
- ◆ UBApps
- ◆ JMCISApps
- ◆ PRINTER

34. When each of the above segments have been successfully installed, a warning window appears stating Selected Segment(s) Installed Successfully.
35. Click the EXIT button to dismiss this warning window after each segment has been installed.
36. Load any additional HP-based GCCS application segments (from a tape or from the Installation Server) at this time, using the Segment Installer window.

Note: If you wish to do any Elint processing, you must ensure that the machine whose disk serves the /h/data/global/UB directory is loaded with the GCCSSD, Version 2.2.1 segment available on the optional Secret Data tape. Typically, the machine whose disk serves the directory is the EM Server.

37. When all segments have been loaded on the workstation, click **EXIT** in the **Segment Installer** window to dismiss the window.
38. Using the **Logout** option under the **Hardware** menu, log out of the system.

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Section 4 *Configure Workstation and Restore Data*

Once the application segment software load is complete, each HP workstation must have the backed-up information restored and be configured for the appropriate TDBM Server and Client functions.

4.1 Restore Backed Up Data

Once all of the workstations on the LAN have been upgraded via the GCCS 2.2 OS Upgrade segment, you must restore the data backed up during the pre-installation procedures in Chapter 2. Restore the configuration data as follows:

Note: You *must* follow the restoration procedures described in this section, not just return the backed-up data to its old location. Due to differences in the software architecture, restored data and configuration files may not necessarily be returned to the directory where they resided prior to the upgrade.

1. **DDN Host Table:** The DDN Host table can be restored from tape after performing the upgrade. After UB 3.0.1.6G has been loaded, un-tar the files as follows:

```
cd /h/data/global/UB; tar xvf <no rewind tape device>
```

After the information from the tape has been restored, log in as sysadmin. From the Network PDM, select Config DDN Host Table and verify that the DDN Host Table is correct.

2. **Communications Configuration:** The Broadcast configuration must be re-entered after the installation of UB 3.0.1.6G. Use the printouts to re-enter the Communications configuration on the TDBM Master machine as follows:

NOTE: It is suggested that sites replace their NETWORK Channel with a new channel that uses the NETPREC Channel.

- a. Login as a valid GCCS user.
 - b. From the Comms PDM, select Communications. The Communications window appears.
 - c. In the Communications window, click ADD. The ADD CHANNEL window appears.
 - d. Enter the NAME and the XREF (the XREF need only be locally unique) and select the interface type and the initial settings from the supplied lists of options. Click OK. The ADD CHANNEL window closes and the Communications window appears.
 - e. In the Communications window, highlight the new channel entry and click EDIT. Using the printouts created earlier, set the parameters of the communications channel to the proper values and click OK. The Communications window appears.
-

- f. Repeat Step c through Step e for each required communications channel.
 - g. After the last broadcast has been entered, click OK in the **BROADCASTS** window to save your entries.
 - h. After the channels have been entered, select **Communications** under the **Comms PDM**, hold down the right mouse button (RMB) and select **Set Default** to store the configuration.
3. **Broadcasts:** The Broadcast configuration must be re-entered after the installation of UB 3.0.1.6G. Use the printouts to re-enter the Broadcast configuration on the TDBM Master machine as follows:
- a. Login as a valid GCCS user.

If the chart does not come up, select **Restart Chart** from the **System** menu.
 - b. From the **Chart** menubar, select **FOTC/Bcst** and then **Broadcasts**. The **BROADCASTS** window appears.
 - c. In the **BROADCASTS** window, click **ADD**. The **ADD BROADCASTS** window appears.
 - d. Add the required broadcast and click **OK**. The **BROADCASTS** window appears.
 - e. Select the new broadcast entry and click **EDIT**. The **EDIT BROADCAST** window appears.
 - f. In the **EDIT BROADCAST** window, adjust the broadcast configuration as needed and click **OK**. The **BROADCAST** window appears.
 - g. Repeat Step c through Step f for each required broadcast.
 - h. After the last broadcast has been entered, click **OK** in the **BROADCASTS** window to save your entries.
4. **AutoForward Tables:** The AutoForward table configuration must be re-entered after the installation of UB 3.0.1.6G. Use the printouts to re-enter the AutoForward configuration on the TDBM Master machine as follows:
- a. Login as a valid GCCS user.
 - b. From the main menubar, select **Comms** and then **Auto-Forward Table**. The **AUTO FORWARD TABLE** window appears.
 - c. In the **AUTO FORWARD TABLE** window, click **ADD**. The **ADD AUTO FORWARD** window appears.
 - d. Add the required auto-forward table entry and click **OK**. The **AUTO FORWARD TABLE** window appears.
-

-
- e. In the AUTO FORWARD TABLE window, click OK to save your changes to the Auto-Forward Table.
 5. Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids: It is now that the remote site transmits your Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids back to you. The procedures for transmitting Overlays, PIMTracks, Screen Kilos, and Four Whiskey Grids are documented in the UB Users Guide.
 6. Briefs and Stored Slides: Briefs and Stored Slides can be restored from tape after the upgrade to UB 3.0.1.6G is complete. On the TDBM Master Machine, un-tar the file as follows:


```
cd /h/data/global/UB; tar xvf <no rewind tape device>
```
 7. The Unified Build software with the Joint Mapping Tool Kit is capable of displaying many DMA mapping products. These include but are not limited to: ARC Digitized Raster Graphics (ADRG), Compressed ADRG (CADRG), Compressed Imagery Base (CIB), and Vector Product Format (VPF) Maps. For details in loading these maps refer to the Unified Build 3.0.1.6G User's Guide.

4.2 TDBM Server Configuration

The TDBM Server machine must be configured to establish a WAN UID, add and initialize UB printers, configure DDN hosts, establish new `sysadmin` and `secman` passwords, set default UB graphic and text printers, establish communications channels, broadcasts and auto-forward tables, and set UID correlation. To configure the TDBM Server:

1. On the TDBM Server, log in as **sysadmin** (default password is **vinson**).
2. From the Network menu, select Set WAN UID. The Set Wan UID window appears.

IMPORTANT: Do not configure a UID prefix which is inappropriate for your site. The three-letter UID “trigraph” must be centrally managed and assigned, likely from the OSF. The UID prefix must be properly managed to prevent duplication of a UID employed at another site. Duplicate UID prefixes catastrophically affect track correlation. For information on setting a UID prefix, see the *Unified Build System Administrator’s Guide*.

3. Enter the WAN UID of the system. For detailed instructions, refer to the *Unified Build System Administrator’s Guide*.
 4. From the Hardware menu, select Config Printer. The PRINTER SETUP window appears.
 5. Add and initialize printers. For detailed instructions, refer to *Unified Build System Administrator’s Guide*.
 6. From the Network menu, select Config DDN Host Table. The Net Hostname Table - Primary window appears.
 7. Configure the DDN Host Table. For detailed instructions, refer to *Unified Build System*
-

Administrator's Guide.

Note: Only TDBM Masters need to be entered into the DDN Host Table. All TDBM Masters with which your site communicates should be entered into the DDN Host Table.

8. From the LAUNCH window, select the xterm icon. An xterm appears.

Note: On HP machines, both the `sysadmin` and `secman` passwords must be changed locally on every machine.

9. At the command prompt in the xterm, login as `root`.

10. At the command prompt, enter `passwd sysadmin`.

11. At the prompt, enter the default password for `sysadmin`.

Note: When changing the `sysadmin` password, it is important to use your local system administrator's recommendation. *Do not* change the password without consulting your local system administrator.

12. At the prompt, enter the new password for `sysadmin`.

13. At the prompt, to confirm the new password, re-enter the new password for `sysadmin`.

14. At the command prompt, enter `passwd secman`.

15. At the prompt, enter the default password for `secman`.

Note: When changing the `secman` password, it is important to use your local system administrator's recommendation. *Do not* change the password without consulting your local system administrator.

16. At the prompt, enter the new password for `secman`.

17. At the prompt, re-enter the new password for `secman`.

18. Log out of GCCS, using the **Logout** option on the **System** menu.

19. Log in as a valid GCCS user.

20. From the **MISC** menu, select **Printer Chooser**. The **PRINTER CHOOSER** window appears.

21. Set the default Graphic and Text printers. For detailed instructions, refer to the *Unified Build User's Guide*.

22. From the **COMMS** menu, select **Communications**. The **COMMUNICATIONS** window appears.

23. Add and configure the appropriate UB communications channels. For detailed communications channel configuration instructions, refer to the *Unified Build User's Guide*.
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24. From the COMMS menu, select Auto-Forward Table. The AUTO FORWARD TABLE window appears.
 25. Add and configure the appropriate auto-forward tables. For detailed instructions, refer to the *Unified Build User's Guide*.
 26. From the FOTC/BCST menu, select Broadcasts. The BROADCASTS window appears.
 27. Add and configure the appropriate broadcasts. For detailed instructions, refer to the *Unified Build User's Guide*.
 28. From the FOTC/BDCST menu, select FOTC PARAMETERS. The EDIT BGDBM CONFIGURATION window appears.
- IMPORTANT:** Do not configure a UID prefix which is inappropriate for your site. The three-letter UID “trigraph” must be centrally managed and assigned, likely from the OSF. The UID prefix must be properly managed to prevent duplication of a UID employed at another site. Duplicate UID prefixes catastrophically affect track correlation. For information on setting a UID prefix, see the *Unified Build System Administrator's Guide*.
29. Ensure all fields are clear of any information. In the BGDBM CONFIGURATION box, set the BGDBM MODE diamond knob to UID CORRELATION. For detailed instructions, refer to the *Unified Build User's Guide*.
 30. Log out of GCCS, using the Exit option on the System menu.

4.3 TDBM Client Configuration

The TDBM Client machine must be configured to initialize printers, establish new `sysadmin` and `secman` passwords, and set default UB graphic and text printers. To configure the TDBM Client:

1. On the TDBM client, log in as **sysadmin** (default password is **vinson**).
2. From the Hardware menu, select Config Printer. The PRINTER SETUP window appears.
3. Add and initialize printers. For detailed instructions, refer to *Unified Build System Administrator's Guide*.
4. From the LAUNCH window, select the xterm icon. An xterm appears.

Note: On HP machines, both the `sysadmin` and `secman` passwords must be changed locally on every machine.

5. At the command prompt in the xterm, login as `root`.
6. At the command prompt, enter `passwd sysadmin`.

-
- At the prompt, enter the default password for `sysadmin`.

Note: When changing the `sysadmin` password, is it important to use your local system administrator's recommendation. *Do not* change the password without consulting your local system administrator.

- At the prompt, enter the new password for `sysadmin`.
- At the prompt, to confirm the new password, re-enter the new password for `sysadmin`.
- At the command prompt, enter `passwd secman`.
- At the prompt, enter the default password for `secman`.

Note: When changing the `secman` password, is it important to use your local system administrator's recommendation. *Do not* change the password without consulting your local system administrator.

- At the prompt, enter the new password for `secman`.
- At the prompt, re-enter the new password for `secman`.
- Log out of GCCS, using the Logout option on the System menu.
- Log in as a valid GCCS user.
- From the MISC menu, select Printer Chooser. The PRINTER CHOOSER window appears.
- Set the default Graphic and Text printers. For detailed instructions, refer to the *Unified Build User's Guide*.
- Log out of GCCS, using the Exit option on the System menu.

4.4 Printer Setup and Configuration (Client Machine)

To update the printers on the client machine and create an acceptable solution for the printer naming conventions, complete the following:

- On the TDBM client, log in as **sysadmin** (default password is **vinson**).
 - From the LAUNCH window, select the EM Printer icon. An EM Printer interface window appears. Respond to the prompts as follows:
 - Enter **I**, to update the printers on the client machine.
 - Enter **G**, to check the status and ensure the printers were updated on the client machine.
 - Enter **Q**, to quit the user interface.
-

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3. Configure the UB printers as follows (For detailed instructions, refer to *Unified Build System Administrator's Guide*):
 - a. Login as `sysadmin` on the client machine.
 - b. From the **Hardware** menu, select **Config Printer**. The **PRINTER SETUP** window appears.
 - c. In the **PRINTER SETUP** window, click **ADD**. The **ADD NEW PRINTER** window appears..
 - d. Enter the appropriate information for each printer in the **PRINTER NAME**, **PRINTER TYPE**, **HOST MACHINE**, **DEVICE**, and **AUTHORIZED REMOTE ACCESS** fields.

Note: It is very important that you enter the printer name as **UPPERCASE** letters, as the printer configuration does not currently support **Mixed Case** naming conventions. The printer names should be the same as the original printer names, just all uppercase letters instead of mixed case.

- e. Ensure that you have checked the **USE EXISTING LOCAL UNIX PRINTER** toggle.

Note: The **USE EXISTING LOCAL PRINTER** setting should be used if the printer being enabled already exists in UNIX. Checking this box will prevent UB from modifying the UNIX printer and will simply allow UB to print to it. If you do not check this setting before initializing the UB printer, any UB printer which uses a duplicate of the existing UNIX printer name will delete the UNIX printer and re-initialize it as a UB printer.

- f. Click **OK** in the **ADD NEW PRINTER** window. The **PRINTER SETUP** window appears.
 - g. From the **PRINTER SETUP** window, click and hold the right mouse button to activate the pop-up menu.
 - h. Select **INITIALIZE** from the pop-up menu to update the applicable UB printer tables and set the printer configuration.
4. Modify the boot procedure to create the correct printer aliases as follows:
 - a. In an xterm window, enter the following:

```
vi a_add_uppercase_alias
```

- b. Enter the following text into the newly created file:

```
#!/bin/csh -f
#
#   Add an ALL CAPS printer for each printer that is in the
#   printer table.
#
Set table = "/h/data/global/EMDATA/config/printer_table"

foreach printer (`grep ";" $table | grep -v "#" | grep -v False | tr ' [= ]' '[_]= '`)
    set printrname = `echo $printer | cut -d";" -f1`
    set allcapsprinter = `echo $printrname | tr '[a-z]' '[A-Z]'`
    if ( $allcapsprinter != $printrname) then
        set host_name = `echo $printer | cut -d";" -f2`
        echo Build a printer, named $allcapsprinter, that communicates with a printer,
named \
$printrname, that is actually on $host_name.
        /usr/lib/lpshut
        /usr/lib/lpadmin -P$allcapsprinter -v/dev/null -mrmodel -ocmrmodel \
            -osmrmodel -ob3 -orm$host_name -orp$printrname -v/dev/null
        /usr/lib/lpsched
        /usr/bin/enable $allcapsprinter
        /usr/lib/accept $allcapsprinter
    endif
end
```

- c. Enter **:wq!** to save the file.

- d. Copy the a_add_uppercase_alias file to the appropriate directory as follows:

```
mv a_add_uppercase_alias /h/EM_PRINTER/progs/a_add_uppercase_alias
```

- e. Ensure that the a_add_uppercase_alias file has 750 set as permissions, ownership of root and is part of the group gccs.

- f. In the /h/EM_PRINTER/progs directory, edit the s_update_printers_on_a_hp_client file. At the very bottom of the file, between the rm -f \$input \$lpstat_file \$table_file line and the echo " " line, enter the following line:

```
/h/EM_PRINTER/progs/a_add_uppercase_alias
```

- g. Ensure that the s_update_printers_on_a_hp_client file has permissions of 750 set, is owned by root, and is part of the group gccs.

- h. Reboot the system. When the system comes back up, there will be an all caps alias created for the first 5 non-deleted, non-all caps printer names. This would indicate that the printers you want to use for UB printing should be the first 5 printers.

Chapter 5 Load Segment onto the Installation Server (Optional)

Note: The Installation Server function allows segments to be stored centrally, so that they may be loaded across the network. The segments must first be copied from tape to the installation server (in raw format), and then they will be accessible to client machines from the standard Installer. The loading of a segment to the Installation Server *does not* constitute an installation of that segment on the machine being used as a Server. The segment must be installed on that machine as on any other, from the raw segment stored on its own disk.

Load a segment to be copied onto an Installation Server as follows:

1. Insert the GCCS 2.2 HP Operating System Upgrade tape into a tape drive.
2. Login to the Installation Server machine as **sysadmin** and select Installation Server from the Software menu. The SEGMENT INSTALLATION SERVER window appears.
3. In the SEGMENT INSTALLATION SERVER window, click SELECT MEDIA in the SOURCE box. The SELECT MEDIA window appears.
4. In the SELECT MEDIA window, click LOCAL (if the tape drive is attached to the machine you are upgrading) or REMOTE (if the tape drive is attached to another machine).
5. If you select REMOTE, A NAME field appears just below REMOTE. Click the button next to the Name field to display a list of hosts available on the local network, and select the hostname of the machine where the tape drive is located.
6. In the DEVICE box, select the media type (e.g., DAT or OTHER). If you select OTHER, you must enter the device name of the tape medium you are using (e.g. / dev/rmt/0mn).
7. Click OK to return to the SEGMENT INSTALLATION SERVER window.
8. Click Read TOC. The items that appear in the TABLE OF CONTENTS portion of the SEGMENT INSTALLATION SERVER window are the names of software segments contained on the tape.
9. From the list, select GCCS 2.2 OS Upgrade from the TABLE OF CONTENTS list.
10. Click LOAD. A window appears, displaying an hourglass, indicating that the system is busy loading the selected segment(s) to hard disk.

Note: This does NOT constitute an installation of the segment on this machine, only a transfer of raw data from tape to disk.

11. When the segment load is complete, a warning window appears, stating **Selected Segment(s) Loaded Successfully**.
12. Click **OK** in the warning window.
13. In the **Segment Installer** window, click **EXIT**.
14. The **GCCS 2.2 OS Upgrade** segment is now available for loading from the **NETWORK** device on any system that shares the same “/h/data/global” file system with the Installation Server.